



Human Environment and Transport  
Inspectorate  
*Ministry of Infrastructure  
and Water Management*

# **ItoRO no. 24 - Ban on the use of Asbestos on board ships**

Versie 3

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# **ItoRO no. 24 - Ban on the use of Asbestos on board ships**

Instruction to RO and the maritime industry

*No. 24 - Ban on the use of asbestos on board ships*

# 1 Introduction

The goal of this 'Instruction to Recognised Organisation no. 24' ('Instruction') is to provide instructions to Recognised Organisations (ROs), shipping companies, shipyards, suppliers and seafarers for the investigation in relation to asbestos containing material (ACM) and the continuation once ACM is found in any part of the ship and furthermore aims at prevention at the source. The Netherlands Shipping Inspectorate (NSI) emphasizes that shipping companies and ROs shall comply with all the relevant International Maritime Organisation (IMO) instruments and Unified Interpretations (UI) by the International Association of Classification Societies (IACS), see Annex 2 of this Instruction, at all times. As advised by IMO, special care shall be taken in order to avoid ACMs to be installed on board, as stipulated in [MSC.1/Circ.1379](#), [MSC.1/Circ.1374/rev.1](#) and [MSC.1/Circ.1426/Rev1](#).

Since the 1<sup>st</sup> of July 2002, the new installation of ACMs has been prohibited for all ships, under SOLAS regulation II-1/3-5.2, except for:

- vanes used in rotary vane compressors and rotary vane vacuum pumps;
- watertight joints and linings used for the circulation of fluids when, at high temperature (in excess of 350°C) or pressure (in excess of  $7 \times 10^6$  Pa), there is a risk of fire, corrosion or toxicity; and
- supple and flexible thermal insulation assemblies used for temperatures above 1000°C.

From the 1<sup>st</sup> of January 2011, for all ships, any installation of ACMs is prohibited as per SOLAS regulation II-1/3-5.2.

Despite the clear and unambiguous prohibition of ACMs, prohibited asbestos is still found on various locations on board ships. During inspections, asbestos has been found in places such as gaskets, fire blankets, joints and insulation materials, types of sealants, friction material for brakes, wall- and ceiling coverings, cords, remnants, electric fuses, etc., despite of an 'asbestos-free declaration or certificate' issued by the shipyard. Moreover, ships that initially were free of asbestos appear to have asbestos on board as a result of repairs at shipyards and/or purchasing spare parts at a later stage.

In 2011, the Netherlands developed a temporary instruction (Instruction-2011) with the goal to provide the industry the possibility to work towards asbestos-free ships. From the entry into force of this temporary instruction it aims at the control of risks involved with ACMs, both allowed and forbidden, on board of ships. Meanwhile many years have passed since the publication of this temporary instruction and it is considered necessary to update the instruction to a higher standard, with as an ultimate goal that the issuance of exemption certificates is not necessary anymore, which is now envisioned per the 1<sup>st</sup> of January 2025.

Furthermore, the worldwide attention to asbestos, both general and for prohibited ACMs, has clearly risen due to the implementation of the [EU Regulation on Ship Recycling 1257/2013 \(SRR\)](#) and [the implementation of the Hong Kong Convention \(HKC, not yet into force\)](#), including an Inventory of Hazardous Materials (IHM) which is to be maintained properly until the moment of recycling of the vessel.

The NSI urges shipowners, shipyards, maritime suppliers, classification societies and other relevant parties dealing with the acquirement, the construction, operation, supply and maintenance of ships to consider their responsibility as well as how they may further contribute in the ban on asbestos of ships taking [MSC.1/Circ.1426/Rev.1](#) into consideration.

## 2 Responsibilities

To confirm the different responsibilities with regards to ACMs, the following applies:

### 2.1 Shipyard and maritime (equipment) supplier

These parties are responsible for any material used (i.e. repaired, replaced, maintained or added) as a working part of the ship should be demonstrable asbestos free.

### 2.2 Shipowner

The shipowner (as defined in the [Maritime Labour Convention, Article II, sub 1. \(j\)](#)<sup>1</sup>) is responsible to ensure (to the extent possible) the purchase of an asbestos-free ship and asbestos-free materials/equipment installed after taken the responsibility of the ship. Furthermore, the shipowner has the primary responsibility as well as the biggest influence as to guarantee a safe working environment as well as the marking and removal of ACMs and adequate mitigating measures and provisions in the meantime for anyone carrying out activities on board the ship. As a result an exemption request shall always be initiated by a request from the shipowner.

### 2.3 Recognised Organisation

The RO shall verify that all the provisions of the relevant IMO instruments as well as the requirements of this Instruction have been complied with. For the application of an exemption, the RO shall verify all the submitted relevant information on the correct application of the (referenced) conditions set in this Instruction, before forwarding its well-founded recommendation including all relevant documentation to the NSI.

### 2.4 Netherlands Shipping Inspectorate

The NSI is responsible for a verification of the submitted information on completeness as well as several fundamental items, and to inform the RO regarding the outcome.

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1 The ship-owner must be:

1 the bareboat charterer of a ship, as mentioned on the Certificate of Registry; otherwise

2 the owner, as mentioned on the Certificate of Registry, or

3 a manager (as assigned by the owner under sub 2.) as defined in Article 311, 3rd paragraph, of the Code of Commerce, to which the owner has officially transferred the responsibility for matters involving compliance with MLC.

### 3 Application

This Instruction applies to ships falling under the scope of the Netherlands Ships Decree 2004 which, according to [article 5, sub 1a and 1b](#), require an International Ship Safety Certificate and are subject to the requirements of the SOLAS Convention, and for ships  $\geq 24$  meter and  $< 500$  GT, subject to [Article 41.1](#) of the Ships Decree 2004, SOLAS regulation II-1/3-5.2 and all elements of this Instruction are also applicable.

For all other ships, there is no legal base to issue an exemption for prohibited ACM found on board. For these vessels, the shipowner may apply the relevant paragraphs of this Instruction (e.g. sampling, testing and reporting) to give substance to his responsibility to comply with the Labour Condition requirements regarding the presence of ACM. If ACM is found on board these ships, the Netherlands' labour regulations are applicable and as a minimum the ship owner has the responsibility for safe working conditions and for controlling the risks as a result of the asbestos. This should be addressed and mitigated in the ships' Risk Inventory and Evaluation (RI&E).



## 4 Verification of the absence of Asbestos Containing Materials

In order to verify the compliance with the rules and regulations under Annex 2 to this Instruction, an Asbestos Investigation shall be carried out including sampling and testing/reporting as specified under paragraph 4.3 and 4.4. The relevant parts of the European Maritime Safety Agency (EMSA) guidance regarding the Inventory of Hazardous Materials may be taken as a guiding document during the investigation, sampling, testing and reporting process, depending on the methods used.

### 4.1 Certified companies or persons to be used for the asbestos investigation

The asbestos investigation (survey and sampling) shall be carried out by independent, qualified and licensed companies which are certified specifically related to asbestos (such as compliant with the requirements stipulated in [Article 4.27 of the Netherlands Working Conditions Regulation](#) (formerly referenced as SC-540 certification) and having asbestos surveying in their scope of certification.

#### 4.1.1 General requirements for the competence of testing and calibration laboratories

The laboratory, conducting the analysis (including testing of the samples and reporting of test results), shall be accredited by a member of ILAC (International Laboratory Accreditation Cooperation) according to ISO/IEC 17025 or equivalent.

#### 4.1.2 Conformity assessment - General requirements for bodies operating certification of persons

The Asbestos surveying and testing facility may be separate companies. The surveyor conducting the survey holds a personal certification (preferably Expert Asbestos Surveyor (DIA, Deskundig Inventariseerder Asbest) for asbestos surveying, issued by a certification body that is accredited to ISO/IEC 17024 or equivalent. It's highly recommended that this person has also suitable (extensive) marine experience.

### 4.2 Investigations

For all situations, bear in mind that the sampling and the investigation is by nature limited as it is not possible that all locations/systems on-board (as listed in [MEPC.269\(68\)](#), table by section 2.2.3 (INDICATIVE LIST, not-exhausted) can be verified (e.g. when the vessel is in operation). However, in the asbestos investigation reports, a well-motivated clarification for the parts of the vessel which could not be investigated (e.g. live switchboards) shall be described, and relevant areas, parts, systems shall be preferably marked and shall be documented in the Asbestos Management Plan (AMP).

#### 4.2.1 Newbuilding or built to flag-in directly after delivery by the shipyard

For each commercial ship being built in compliance with the rules of the Netherlands, the RO shall verify that during the newbuilding process and repairs/maintenance, no ACMs are used in accordance with [MSC.1/Circ.1426/Rev.1](#) and that the asbestos investigation documentation, which shall be provided by shipyards, repair-yards and equipment manufacturers, was to their satisfaction and in compliance with this Instruction.

For each commercial ship to be registered under the flag of the Netherlands directly after delivery by a shipyard, being either a ship being built in accordance with the rules of the Netherlands, or a ship being built under foreign flag regulations, prior to delivery, the RO shall verify that the ship is delivered asbestos-free using the investigation referenced in paragraph 4.3 and 4.4.

The asbestos investigations shall be carried out during the new building process and at a moment that all parts / systems / decorative materials / installations are present and available for inspection, in order not to limit the effect of the asbestos investigation.

No exemptions for ACMs shall be granted in case the ship is built under Netherlands flag or built under foreign flag and brought under Netherlands flag directly after delivery. It is recommended that asbestos survey should be carried out while the relevant stages of the newbuilding are in progress.

It is recommended that the report will be available within two weeks after the completion of the asbestos survey and before the Safety (Construction) Certificate is issued on behalf of the Netherlands' flag.

#### **4.2.2 Existing ships transferring to the Netherlands' Registry (flag-in from foreign flag)**

For each commercial ship being built under foreign flag the shipowner is responsible for the asbestos investigation and the removal for ACMs causing a direct threat<sup>2</sup>, prior acceptance under the flag of the Netherlands (or in duly justified cases exempted according to paragraph 5). The RO shall verify that the asbestos investigation documentation was to their satisfaction and that it is in compliance with this Instruction. If investigations were carried out according to requirements and guidelines for the IHM, the most stringent requirements apply, which would normally be this Instruction unless the RO has investigated otherwise and confirms by written statement.

For each flag-in ship brought under Netherlands flag, not falling under paragraph 4.2.1:

The RO shall verify that no ACMs have been installed on the ship after the 1<sup>st</sup> of July 2002 in compliance with legislation as mentioned under Annex 2 to this Instruction, using the investigation referenced in paragraph 4.3 and 4.4, or verify and state in writing that during building or initial/periodical SRR/IHM surveys, procedures equivalent to this Instruction were followed (such as the EMSA IHM guidelines).

Ships having ACM installed before the 1st of July 2002, the ACM are allowed when there is no health risk for the persons working in that area and will not create a hazardous environment for the crew and persons visiting the ship or when working on its systems. In all cases repairs and removals are to be carried out in accordance with the [Working Condition Act](#) under the responsibility of the shipowner (reference is made to paragraph 2). Guideline [MSC/Circ.1045](#) for maintenance and monitoring of on-board ACM is applicable but not limited to just the applications mentioned in the document (e.g. gaskets), both for prohibited as for non-prohibited ACMs.

In between the 1st of July 2002 and the 1st of January 2011, the installation of ACM, in accordance with SOLAS regulation II-1/3-5, is still accepted provided that there is no health risk for the persons working in that area and will not create a hazardous environment for the crew and persons visiting the ship or when working on its systems, for:

- vanes used in rotary vane compressors and rotary vane vacuum pumps;
- watertight joints and linings used for the circulation of fluids when, at high temperature (in excess of 350°C) or pressure (in excess of  $7 \times 10^6$  Pa), there is a risk of fire, corrosion or toxicity; and
- supple and flexible thermal insulation assemblies used for temperatures above 1000°C.

In case ACMs are detected in any other component, the Circulars [MSC/Circ.1045](#), [MSC.1/Circ.1374](#), [as revised](#) and [MSC.1/Circ.1379](#) (UI, see also [MSC.1/Circ.1426/Rev.1](#)) are applicable and if not eligible for the equivalent (see paragraph 5.1), temporary exemptions shall be issued in accordance with this Instruction, for ACM listed under category B in paragraph 4.5, by the RO according to paragraph 5.

Ships changing into the Netherlands flag, where an asbestos investigation is required according to this paragraph, shall finalize sampling, analysis and reporting within three months after the date of entry under the Netherlands flag. In every case the investigation as well as the preliminary report, confirming that there are no direct threat in relation to ACMs, shall be available prior to the ship is sailing under Netherlands flag.

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2 Being determined by the surveying company

## Bareboat-out

For ships which are to be temporary registered in another registry, the NSI recommends to agree the conditions on which the ship is eligible for returning to the flag of the Netherlands beforehand through/via the Classification Society. The conditions sounds as follows:

- The ship remains in Class and under the conditions as per their agreement as well as all surveys by the same Classification Society (RO) as before;
- The shipowner declares that, with regard to ACM and any exemption (conditions), during the bareboat out period the shipowner will treat the ship in accordance with the requirements of the Netherlands as if the ship was under Dutch flag during the entire period;
- The shipowner remains responsible.

If such an agreement was in place before the temporary registration in another registry was conducted and the conditions for the issuance of the exemption remains valid, the exemption may be reinstated and no new or additional investigation needs to be carried out. If such agreement was not in place or in case the conditions were breached, a new investigation in accordance with this Instruction is required.

### 4.2.3 Existing ships flying the flag of the Netherlands prior to publication of (Instruction-2011)

ACM installed on board ships **before the 1<sup>st</sup> of July 2002**, is still allowed under this Instruction. It is the responsibility of the shipowner to warrant that no ACMs will create a direct threat for the crew and persons sailing / visiting the ship or when working on its systems. This requirement is according the Netherlands Working Condition [Act](#) and [Decree](#) and shall amongst others be implemented in the ships' specific RI&E identifying possible threats on board as well as sufficient mitigating measures. The risks arising from ACMs are part of this requirement, which is applicable for all ships under Netherlands flag.

The above also applies to ACMs (specific applications) which are legally allowed to be installed **after the 1<sup>st</sup> of July 2002**, but not later than **the 1<sup>st</sup> of January 2011**. **In case of forbidden ACMs found during IHM, see paragraph 6.5.**

#### For both category 4.2.2. and 4.2.3 :

In case prohibited ACMs were found on board a ship which has sister ships, this shall be reported by the RO to the NSI. Additional actions must be taken by the ship owner when the vessel is sailing within the same company. The NSI will inform other flag States and/or Companies in case such is applicable.

In case the relevant RO has issued a written statement to such an effect that an IHM has been done which is equivalent to this Instruction, this is acceptable.

### 4.2.4 Notification of ACM installed after 1st of July 2002

If ACM is found in any equipment covered by the [Directive 2014/90/EU](#) (Marine Equipment), the NSI shall be informed.

## 4.3 Sampling

As a general principle, the samples shall be representative of the materials being checked and in sufficient numbers. With regards to the sampling, the guidance of this Instruction shall be followed.

The components given in the indicative list of Appendix 5, paragraph 2.2.3.2 to [Resolution MEPC.269\(68\)](#) shall be considered for sampling. Extra attention shall be paid to exposed components of high risk of both being asbestos and (prone to) being damaged (see Annex 1 of this Instruction - under 'systems').

While sampling special focus should be on gaskets and other parts of all those systems/equipment throughout the vessel where (planned/regular) maintenance and/or repairs can be expected.

Samples per vessel shall be decided by a certified surveyor from the certified investigation company by his professional judgment and of all materials suspected of containing asbestos.

As a general rule, the samples should be representative of the materials being checked and in sufficient numbers. As guidance the rule of 10% may be established meaning that roughly 10% of the components of any system identified for a sampling check shall be sampled. However, taking of samples and the number of samples to be taken should always be determined according to the professional judgement of the entity carrying out the survey and proper/pragmatic ceilings in the number of samples should be established per each product or system. Materials of the same kind may be sampled in a representative manner. Mixing of samples is not allowed.

If one or more components prove to be ACMs, a further 10% (of other than the originally sampled components) of the same types may be sampled (with a maximum of 40 samples per each type of the components per each equipment/system) to consider the system to be ACM free. If these prove to be non-ACM, no further sampling is needed for that system/equipment. **Otherwise** all components shall be sampled or to be considered potentially containing asbestos until proven asbestos-free.

The components considered 'potentially containing asbestos' are also part of the exemption under paragraph 5 and shall be removed before the expiring of the exemption, unless sampling indicates in the meantime that they are asbestos-free.

ACM (suspect) sampling points shall be clearly logged for location reference (detailed photo of sampling location and / or by marking of sample location). Locations shall also be indicated in the general arrangement plans of the ship.

*The procedures and processes described in the [EMSA Guidance on the Inventory of Hazardous Materials](#) related to sampling and analysis could be relevant and may be used as guidance*

## 4.4 Testing and reporting

Compliance of onsite taken samples being asbestos-free or not is to be determined by using qualitative analysis method of Polarized Light Microscopy (PLM-optical analysis) as with this method asbestos fibres can be detected. Asbestos testing laboratory should confirm that with using PLM-optical analysis method they are able to reach the detection limit of <0,1% (m/m) of asbestos in a sample. The laboratory test report shall also state samples in which no asbestos is detected. The survey report shall state the materials and equipment of all asbestos-free samples as well..

The asbestos survey report shall also show the percentage(s) of the asbestos samples per installation that are taken. Pending the report, all potentially ACM/locations are to be treated as if they are asbestos contaminated. The report shall clearly state samples/locations causing a direct threat and give a clear indication which locations/systems/equipment are sampled and non-sampled.

Further, the test report shall be in compliance with the [Netherlands' NEN 5896](#), [Australian standard NOHSC 2018\(2005\)](#) or [German VDI 3866](#).

**Asbestos investigation reports shall unambiguously declare that this ItoRO no. 24 is followed and complied with.**

**Reporting to the RO and verification of the investigation documentation by the RO shall be completed before issuance of the full term statutory certificates.**

An asbestos survey report that is more than 3 years old is expired, see [Staatscourant 2018, 68771, art. 22.18](#), and therefore cannot be accepted, in case removal is planned after the expiry date of the report. The scope of the additional / update investigation shall consist of sampling of locations / installations / areas which are not sampled before and/or were removal activities which have been carried out. The outdated report can be amended based on the additional / update investigation.

## 4.5 Removal, cleaning, decontamination and re-(tightness) testing.

Since the dates that the new installation of ACMs is prohibited, no ACM shall be newly installed in any part of the ship. But if asbestos is discovered this should first and foremost not be a direct health threat for the persons on board. Furthermore it shall be approached in a risk-based and careful way to prevent exposure to, and contamination of parts of the ship by asbestos fibres.

When the sampling is completed and tested samples prove to be of ACMs, the following actions are required:

- a. A plan of removal and re-installation shall be agreed between the shipyard/removal company and the shipowner. The final report containing the feedback of the actions carried out according to the agreed plan shall be made available to the RO for recording purposes.

Note: the RO is not an asbestos expert nor a licensed asbestos removal company. The RO can only verify that the ACM listed as found has been documented and reported as removed by the shipyard/removal company and can check the company's licenses, the timescale, reports, etc.

- b. Any identified ACM, or not proven asbestos-free materials shall be categorized as followed:

**Category A: direct risk of exposure** to asbestos fibres for any person on-board if no action is taken; to be removed<sup>3</sup> immediately.

Examples (not limited to):

- friable damaged ACMs with risk of exposure
- thermic insulation lagging and/or worn out
- damaged insulation on electrical equipment
- lagging material exhaust pipe / turbocharger / etc.
- insulation walls / ceiling which has been opened several times
- gaskets for manholes
- worn floor (accommodation)
- open braking material/lining (winches/stoppers)
- dust/debris/remnants/spares
- etc....

**Category B: no direct or long-term risk of exposure**<sup>4</sup> to persons on-board and **no** access / exposure as a result of regular maintenance<sup>5</sup> is applicable. In case of unforeseen emergency repairs while vessel is en route, reference is made to paragraph 6.2 of this Instruction. This category may be exempted for direct removal under the conditions of paragraph 5 of this Instruction with a maximum 3 years (calculated from the date of survey), or in case of consecutive exemptions beyond 3 years: as soon as reasonably possible

<sup>3</sup> If adequate mitigating measures are implemented, some cases (with elimination of the direct risk), may be eligible to be categorized as category B, to be determined by the DIA

<sup>4</sup> Being determined by the surveying company

<sup>5</sup> As defined in the planned maintenance system, or listed in the manufacturers manual as a periodical maintenance item

(e.g. during planned maintenance), based on the risks, planning of surveys and maintenance and no later than 31 December 2024.

Examples (not limited to):

synthetic stern tubes

non-friable applications on outside decks (e.g. cable penetration seals/putty)

fully covered/sealed ACM (as part of installation, not manually sealed off items)

...

c. For removal and decontamination of ACMs and cleaning of the area's in question, qualified and licensed personnel/companies shall be used.

In the Netherlands the 'Decree on asbestos removal 2005' and the 'Netherlands Working Conditions Act and Decree' are applicable. For removal of risk class 2 and 2A (as per SMA-rt determination) applications, only companies carrying a process-certificate for asbestos removal shall be used<sup>6</sup>. This process-certificate is issued by the Minister or Certifying Body.

The shipyard/removal company is responsible and the removal process shall be supervised by a DTA (Expert Supervisor Asbestos removal / Deskundige Toezichthouder Asbestverwijdering), who shall monitor that the removal is carried out according to the national requirements as mentioned above. If the removal is carried out in other countries, a DTA shall monitor and ensure the equivalence to the Netherlands' standards.

d. After removal, decontamination, re-installation and cleaning, an asbestos closing inspection is required. In case of risk class 1 removals (as per SMA-rt determination), this inspection can be done by the supervisor/foreman of the qualified and licensed company (DTA – expert supervisor asbestos removal). In case of risk class 2 or 2A removals, this closing inspection is to be conducted by a RvA (Raad voor Accreditatie) / ILAC (International Laboratory Accreditation Cooperation) accredited company/laboratory, and as per SMA-rt described procedures. In case of emergency repairs, when no certified removal company can be contracted, the closing inspection shall be conducted by a responsible crew member, designated by the shipowner (e.g. Chief Engineer).

e. Materials installed to replace ACMs shall be subject to verification in accordance with the relevant instructions above or equivalent measures.

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<sup>6</sup> Certified companies are shown on the website: [www.ascert.nl](http://www.ascert.nl)

## 5 Exemptions according to MSC.1/Circ.1374, as revised

### 5.1 General

In all cases where ACMs are detected, the [MSC/Circ.1045](#), [MSC.1/Circ.1374/Rev.1](#) and [MSC.1/Circ.1379](#) are applicable and exemptions for prohibited ACMs may be issued by the RO.

The shipowner shall contact the RO for the issue of an exemption for prohibited ACMs.

In case of the Asbestos Containing Gaskets, falling under paragraph 14 of MSC.1/Circ.1374/Rev.1, no exemption is required, instead reference shall be made on the Cargo Ship Safety Certificate, Cargo Ship Safety Construction Certificate, Passenger Ship Safety Certificate or National Safety Certificate (whichever is applicable) to the [Equivalent Arrangement XQ108283](#).

### 5.2 Conditions to be eligible for an exemption

The following is required to be able to apply for an exemption:

- a. Procedures according paragraph 4 of this document are to be followed, resulting in a report according paragraph 4.4.
- b. An Asbestos Management Plan (AMP), in which is mentioned the summary of materials to be removed, where and when, by whom, shall be submitted by the shipowner to the RO. In the meantime that the removal is not possible, and depending on the Risk Assessment (being determined by the surveying company) qualified monitoring of asbestos fibres in the air and / or a visual inspection for possible deterioration of the ACM should be carried out by the shipowner in accordance with [MSC/Circ.1045](#) and records to be retained on board until the contravention is removed. The removal, apart from gaskets as mentioned in paragraph 5.1, should take place as soon as possible but in any case within the time frame of the exemption which is a maximum of 3 years from the date when the contravention is found.
- c. ISM procedures shall include the results/information of RI&E & AMP (see appendix '4' for minimum content of AMP), measures identifying all possible risks caused by the (temporary) remaining both forbidden and non-forbidden asbestos, including activities where asbestos may be involved/ expected (opening systems in case of emergency), as mentioned in the AMP.
- d. All known asbestos shall be clearly marked, as well as all non-proven non-ACM shall be made known to crewmembers/contractors as part of ships' familiarisation and regularly inspected and registered by a qualified person<sup>7</sup> to ensure that it is not deteriorating or contributing to an unacceptable health risk. The on-board safety commission shall have the ACM and its risks on the agenda on a regular basis (including any activities related to the monitoring of the ACM).
- e. Crew shall be informed about the procedures where, only in case of emergency situations, ACMs are to be handled and/or removed. These procedures shall be part of the ISM procedures or of the AMP (also reference is made to paragraph 6.2 of this document). Whenever incidents arise during such operations to such an effect that asbestos exposure may have taken place, this shall be recorded by a dedicated form and documented by shipowner and in copy tot the relevant crew member(s).
- f. Personal protection and special asbestos disposal bags (labelled with asbestos warning signs and specified thickness of plastic) shall be on-board. Reference is made to the mandatory RI&E, according to the Netherlands Working Condition Act and Decree. The personal protection is only to be used in case of emergency when repairs are necessary and where asbestos could be involved. The personal protection shall contain the following items as a minimum:
  - Breathing masks / respirator suited for an environment contaminated with asbestos (equipped with P3 type filters only);

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<sup>7</sup> to be designated by the ships manager (e.g. Chief Engineer)

- Protective clothing like disposable coveralls;
  - Head covering;
  - Over boots;
  - Gloves;
  - Eye protection;
  - Other relevant means to prevent asbestos contamination.
- g. The RO shall verify the above conditions (including the documentation thereof) during each survey of the Ship Safety Certificate as well as during the ISM audits.

## 5.3 Procedure to obtain an exemption

In order to qualify for the exemption with respect to the presence of forbidden ACMs, the shipowner has to submit a request to the RO accompanied by the relevant documentation as well as an owners' declaration<sup>8</sup>.

The request has to be accompanied by a well-founded proposal, including the asbestos survey report, making clear reference to and stating compliance with the requirements as mentioned in this Instruction, [Resolution MEPC.269\(68\)](#) and an oversight which ACMs falls under the procedure as per [MSC.1/Circ.1374, as revised](#), as well as a fixed date/period before which forbidden ACMs will be removed.

After acceptance by the NSI, the RO shall then issue a temporary exemption, with a maximum validity of 3 years from the date when the contravention (date of the asbestos investigation) is found, under the conditions mentioned in paragraph 5.2, and according to the procedures mentioned in the agreement between the ROs and the NSI. The exemption shall clearly mention all the conditions as per paragraph 5.2 and shall be attached to the Cargo Ship Safety Certificate, Cargo Ship Safety Construction Certificate, Passenger Ship Safety Certificate or National Safety Certificate (whichever is applicable).

**NOTE: Permanent exemptions shall not be granted. Due to the fact that currently within the IMO no possibilities are provided yet.**

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8 [Owners declaration asbestos](#)



## 6 Other relevant issues

### 6.1 Transferring to another Registry

The RO shall report to the gaining flag State and Recognised Organisation (if applicable) all the documentation with regards to the asbestos exemption as well as related exemption (history).

### 6.2 Emergency repairs

In case of emergency repairs<sup>9</sup> while en route at sea, the handling and removal of ACMs may be carried out by the crew, provided such is done under specified conditions<sup>10</sup>. These specified conditions should be registered in detail in the AMP, preferably via a Standard Operating Procedure (SOP) for Emergency Repairs. note: Emergency repairs are only allowed on gasket materials. Gaskets containing chrysotile can be classified in risk class 1. Gaskets with amphibole asbestos (not being chrysotile) will be automatically classified in risk class 2A (SMa-rt). Emergency repair works can only include the gasket(s) involved in the incident (e.g. leakage) and removal of rk2 or rk2A classified gaskets should always be conducted by licensed asbestos contractors whenever practically possible. A risk class 1 removal as a consequence of an emergency repair, is only possible when the gasket is loose or can be removed without damage. These operations may be carried out by the crew, when properly trained, provided with sufficient personnel protection and under conditions that the release of asbestos particulars in the air is avoided.

The shipowner shall provide detailed instructions in the Safety Management System stating the conditions under which, and in what way, these activities shall be carried out.

If it is not risk class 1 (i.e. when gaskets cannot be removed without damage or when gaskets are glued gaskets): materials **are not allowed to** be handled or removed by the crew.

### 6.3 Asbestos found after the 1st of January 2025

After this date the NSI will, in principle, not accept any vessel to transfer to its registry in case of contamination by forbidden ACMs, except for cases as described in this Instruction (see paragraph 5.1). However, the NSI is also aware that a 100% guarantee in relation to the presence of (forbidden) asbestos is impossible. Therefore in cases that a ship might prove to have issues with forbidden ACM contamination of parts of the ship, in duly justified cases the NSI will issue a short-term exemption based on [article 5 of the Ships Act](#) in order to provide the ship owner with the possibility to remove any identified ACMs in a controlled manner.

### 6.4 Non-forbidden ACMs

On board ships in cases where asbestos is not prohibited in the existing construction, it is the responsibility of the shipowner to warrant that no ACMs are damaged and will not create a hazardous environment for the crew and persons visiting the ship or when working on its systems neither direct or in the future. This requirement is according the Netherlands Working Condition Act and Decree and shall be part of the RI&E.

### 6.5 Asbestos found during IHM sampling according to the EU Ship Recycling Regulation (SRR)

It is required that an asbestos investigation, testing and reporting in accordance with this Instruction has been performed in all cases where forbidden asbestos is found during SRR/IHM-investigation. This

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<sup>9</sup> Performed in accordance with SOP

<sup>10</sup> It's highly recommended to take note and make use of available instructions and guidance of the specialized asbestos removal companies.

as a general principle of the requirements of the Working Conditions Act and also since this is a firm requirement to be eligible for the issuance of an exemption.

In that respect it must be mentioned that while Netherlands' minimum requirements for IHM/SRR-investigation are not equivalent with the requirements of this Instruction, it is understood that some ROs have additional requirements in place in relation to IHM/SRR-investigation.

Therefore in cases where the RO dealing with the SRR/IHM-survey and certification confirms in writing that, due to their additional requirements (e.g. according to EMSA IHM Guideline standards), these investigations are at least equivalent to the requirements of this Instruction, this can be accepted as equivalent.

Unless IHM/SRR-investigation for the ship concerned is declared equivalent with this Instruction, the probability that no ACM at all is detected during SRR/IHM-investigation is very much present. The shipowner should be very much aware of this while preparing and implementing the ships' risk inventory, as part of the RI&E, to identify and mitigate (possible) hazardous situations on board. It is therefore highly recommended that an asbestos investigation in accordance with this Instruction is performed in all cases regardless.

## 6.6 Exclusions while investigating/sampling

In cases where areas/rooms were excluded from the survey/sampling, these areas/rooms are to be specifically mentioned in the asbestos survey report and considered and treated as Potentially Containing Hazardous Materials (PCHM as per [MEPC.269\(68\)](#)). These locations are to be surveyed and sampled as soon as possible but not later than 3 months after the initial asbestos survey.

Installations/materials excluded from the survey are to be registered in the asbestos survey report. The surveying company must specify per exclusion if ACMs are to be expected at these installations/materials. If ACMs are to be expected at these locations, the respective installations/materials are to be treated as asbestos containing until proven asbestos-free via sampling.

All crew and possible contractors shall be informed about the status/extent of the asbestos investigation performed in relation to possible presence and/or exposure to ACMs.

## 6.7 Relation IHM certificate when prohibited ACM is found on board while no exemption has yet been issued / agreed upon

An IHM certificate may be issued for 5 years, even if ACM is present and no exemption has yet been granted. However, a Ship Safety (Construction) Certificate cannot be issued or must be withdrawn in case the ACM is installed contrary to the prohibition provisions in the SOLAS Convention unless an exemption in accordance with this instruction is obtained. Also in case where because of further investigation as a result of this Instruction additional asbestos is found, the IHM documentation shall be amended accordingly.

## 6.8 Advised retroactive action(s) for the shipowner

While the Netherlands' have meanwhile had requirements in place in relation to ACMs for many years it is also to be noted that the former requirements, the instructions as well as the assessment in order to decide the issuance of exemptions required updating. Not in the least because of the change in perspective / the advancing years where the Netherlands' were a frontrunner and every / any effort was better than most other countries. Therefore all relevant shipowners are urgently advised to investigate and re-assess their vessels against these latest requirements and implement any mitigating measures and/or other improvements where possible as part of their obligation in relation to RI&E.

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# Annex 1 List of definitions

Asbestos: Asbestos refers to naturally occurring fibrous forms of mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals. The six forms of asbestos include:

- actinolite asbestos (CAS-number 77536-66-4);
- amosite (brown asbestos; CAS-number 12172-73-5);
- anthophyllite (CAS-number 77536-67-5);
- chrysotile (white asbestos; CAS-number 12001-29-5);
- crocidolite (blue asbestos; CAS-number 12001-28-4);
- tremolite asbestos (CAS-number 77536-68-6).

Asbestos is a hazardous substance with carcinogenic properties. Exposure to asbestos fibres in the air can cause a range of lung diseases and diseases of related tissue, including asbestosis and mesothelioma, a form of cancer which is usually fatal.

Systems: The components of the systems given in the indicative list stipulated in paragraph 2.2.3.2 of Appendix 5 of Resolution MEPC.269(68) should be considered. Furthermore: piping insulation materials and –connections, gaskets in engine equipment, piping and valves, insulation materials and panelling in accommodation, floors, ceilings and gaskets in deck equipment and piping. Extra attention should be drawn to gaskets in bilge-, ballast-, grey water-, black water-, cooling water-, fire-fighting-, oil-, cargo and cargo and exhaust gas systems and their components.

SOLAS and non-SOLAS ships: All ships (including those without propulsion) falling under the Netherlands Ships Act / Decree 2004.

New installations of materials containing asbestos (ACM): As defined in the MSC.1/Circ.1379.

Non ACM/ asbestos-free is defined as: proved to have < 0.1 % (m/m) of asbestos in the sample via Polarisation Light Microscopy (PLM) analysis. Samples with 0.1% (m/m) or more asbestos are considered to be ACMs<sup>11</sup>.

SMA-rt: substances manager asbestos risk method (Stoffen Manager Asbest Risico Techniek) ([www.ascert.nl](http://www.ascert.nl)).

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<sup>11</sup> With the entry into force of the Hong Kong Convention, the level playing field with regards to the definition and thresholds of ACMs will be implemented towards uniformity for all Member States (>0,1%).

## Annex 2 Legislation and guidance

### Mandatory

- The Netherlands Ships [Act / Decree 2004](#),
- Working Conditions [Act / Decree](#),
- the Netherlands Decree on asbestos removal ([Asbest verwijderingsbesluit](#)), for asbestos applicable on SOLAS and non SOLAS ships.
- SOLAS Chapter II-1, regulation 3-5.2 – For all ships, new installation of materials, which contain asbestos, shall be prohibited:
  - Since 1 July 2002, new installations of asbestos containing materials on board all ships have been allowed only in exceptional cases.
  - From 1 January 2011, new installations of asbestos containing materials on board ships will, without exception, no longer be allowed.
- [European Regulation No. 1257/2013](#) on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC (Ship Recycling Regulation)
- [Directive 2009/148/EC](#) on the protection of workers from the risks related to exposure to asbestos at work
- Convention on Ship Recycling ([Hong Kong Convention](#) - not yet entered into force)
- [Resolution MEPC.269\(68\)](#), Guidelines for the development of the inventory of hazardous materials

### Policy Rule

- [MSC.1/Circ.1374/Rev.1](#), Information on prohibiting the use of asbestos on board ships
- [MSC.1/Circ.1379](#), Unified Interpretation of SOLAS regulation II-1/3-5
- [MSC/Circ.1045](#), Guidelines for maintenance and monitoring of on-board materials containing asbestos
- [MSC.1/Circ.1426/Rev.1](#), Unified interpretation on implementation of SOLAS regulation II-1/3-5 and MSC.1/Circ.1379

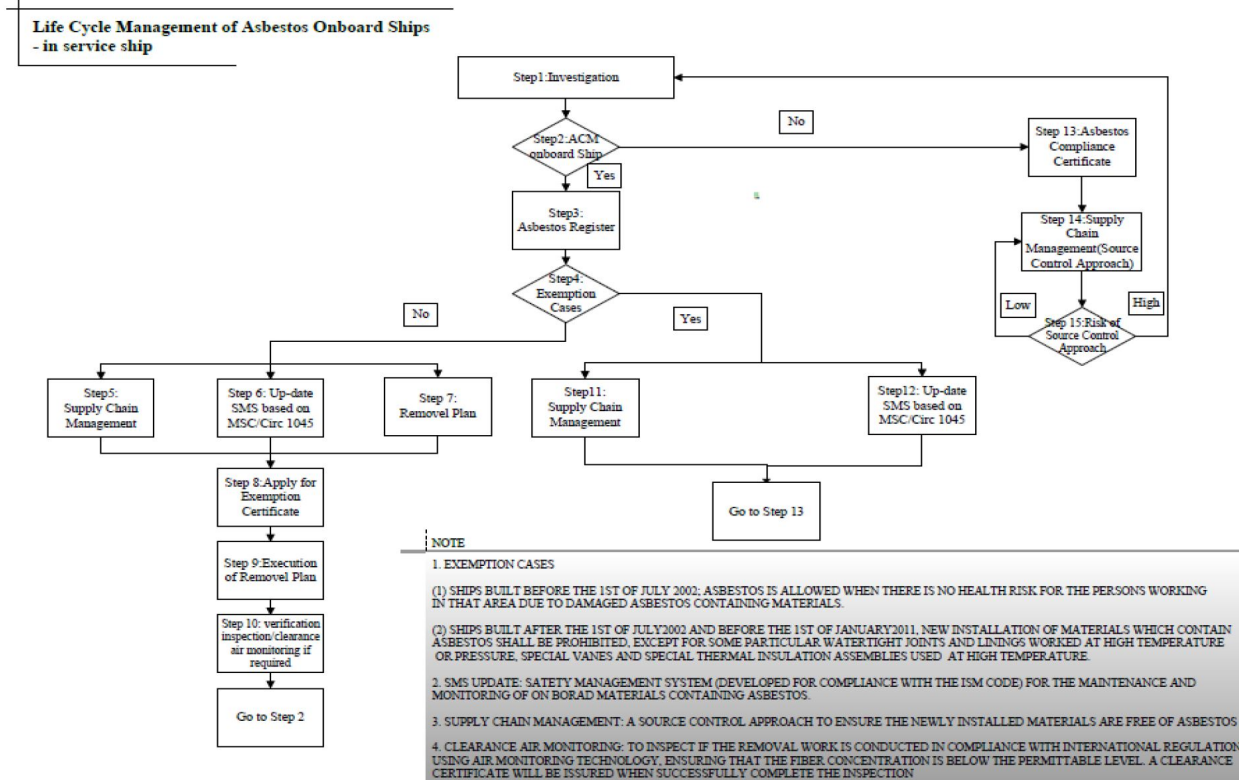
### Information

- [Guidance on the Inventory of Hazardous Materials](#) (IHM development and maintenance in the context of the EU Ship Recycling Regulation (EMSA))

# Annex 3 Example of Life Cycle Management

Life cycle management may be implemented by the ship owner to avoid the recontamination with ACMs during the operation of the ship.

An example has been provided and should be part of the ISM system or maintenance system and RI&E if ISM is not required.



## Annex 4 Asbestos Management Plan (AMP)

Below, the minimum contents of the Asbestos Management Plan are shown.

- Introduction / Scope
- Summary asbestos/IHM survey results
- Asbestos and risk explanation
- Responsibilities
  - Designated person on board
  - Crew
  - Contractors
  - Visitors
- Tasks to create a safe working/living environment
  - Control measures
  - Removal
  - New supplies
  - Training crew (asbestos awareness / incident management)
- Periodical checks ACMs present onboard
- SOP emergency asbestos gasket repairs